



Appl. No. 09/744,271  
Atty. Docket No. AA333  
Customer No. 27752

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Application No. : 09/744,271  
Applicant(s) : Takashi Sako et al.  
Filed : January 22, 2001  
Title : Hair Conditioning Compositions Comprising Carboxylic  
Acid/Carboxylate Copolymer and Amphoteric  
Conditioning Agent  
TC/A.U. : 1618  
Examiner : Dameron Levest Jones  
Conf. No. : 5065  
Docket No. : AA333  
Customer No. : 27752

**DECLARATION OF TAKASHI SAKO UNDER 37 CFR 1.132**

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22312-1450

Dear Sirs:

I, Takashi Sako, hereby declare and say the following:

1. I have been a full-time employee of The Procter & Gamble Company for 15 years and my current position with the company is senior scientist, P&G Beauty. I hold a MS degree in Faculty of Agriculture from the Kyushu Univ., 1991 in Japan.
2. I am one of the named inventors on the above-entitled application and am familiar with the December 15, 2005 Office Action in that application.

The claimed invention in the above-entitled application:

A hair conditioning composition comprising:

- (1) an acrylate/C10-30 Alkyl Acrylate Crosspolymer;
- (2) an amphoteric conditioning polymer;
- (3) an aqueous carrier;
- (4) a humectant comprising a polyethylene glycol having a molecular weight of up to about 1000; and

wherein the hair conditioning composition is a leave-on-conditioner composition.

3. Under my direction, tests were performed to compare the non-sticky feel performance of a leave-on-conditioner composition comprising polyethylene glycol (PEG-4) to a leave-on-conditioner composition comprising a humectant which is the propylene glycol.

4. The leave-on-conditioner compositions tested are described below in Table 1. The sample compositions were prepared by methods well known in the formulation arts for preparing leave-on-conditioner compositions. Unless otherwise specified, all concentrations are by weight percent.

**Table 1**

	Example A	Example B
Ingredient:	Percent Composition	
polyethylene glycol 200 <sup>1</sup>	2.0	-
Propylene Glycol <sup>2</sup>	-	2.0
Polyquaternium-39	2.0	2.0
Triethanolamine	0.45	0.45
Dimethicone/Dimethiconol	1.0	1.0
Carboxyvinylpolymer	0.1	0.1
Acrylate/C10-C30 alkyl acrylate crosspolymer	0.35	0.35
UV absorber - Uvinul MS-40	0.05	0.05
Unishperes AGE-527 <sup>3</sup>	0.10	0.10
Perfume	0.05	0.05
DI Water/Minors	q.s	q.s

<sup>1</sup> Polyethylene glycol 200, which is available from Union Carbide as PEG-4

<sup>2</sup> Propylene glycol is available from Union Carbide

<sup>3</sup> Unishperes AGE-527 available from Induchem AG

5. The sample compositions were evaluated using 8 panelists. Panelists rated stickiness on hands after the product application for stickiness feel on a scale of 1-7 (1 Very sticky, 7: not sticky at all).

6. The results are reported in Table 2 (below). A higher number represents less sticky feel on hands.

**Table 2**

Example	PEG-4	Polypropylene Glycol	Score
A	-	2.0	5.8*
B	2.0	-	6.3*

\* 80% confidence level

7. Examples A and B indicate that polyethylene glycol significantly reduces sticky feel as compared to propylene glycol. Thus, use of polyethylene glycol is beneficial in creating a non-sticky feel without tackiness on hands.

8. The sample compositions were evaluated using the combing tester. Combing friction force is measured after the product application on hair switches vs. internal control products based on the protocol. (% reduction of combing friction: 0 - 100%)

**Table 3**

Example	PEG-4	Polypropylene Glycol	% Reduction
A	-	2.0	27*
B	2.0	-	48*

\* 90% confidence level

9. The data in Table 3 demonstrate that the superiority of selected humectant (PEG-4) compared to other humectant (propylene glycol) is shown. As shown in Table 3, Formulation B containing PEG-4 has significantly reduced hair friction compared to the formulation A containing propylene glycol. Thus, use of polyethylene glycol is beneficial in creating smooth feel of hair.

10. I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that the statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001, Title 18, of the United States Code, and that such willful false statements may jeopardize the validity of the above-identified application of any patent issued thereon.

  
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Takashi Sako

Dated: 6/7/06

**18 U.S.C §1001 Statements or Entries Generally**

Whoever, in any matter within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals, or covers up by any trick, scheme, or device a material fact, or makes any false, fictitious or fraudulent statements or representations, or makes or uses any false writing or document knowing the same to contain any false, fictitious, or fraudulent

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statement or entry shall be fined no more than \$10,000 or imprisoned not more than five years, or both.